REMARKS

1. Finality of Office Action/Entry of Amendments

Withdrawal of the finality of the Office Action as per MPEP 706.07(d) is required. Under MPEP 706.07(a), second (or subsequent) Actions cannot be final where a new ground of rejection is introduced that is neither (1) necessitated by applicant's amendment of the claims, nor (2) based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).

Here, elements (1) and (2) are not present. To illustrate, the current April 6, 2010 Office Action presents, at pages 2-3, a new rejection of claim 45 under 35 USC §101. (Claim 45 was not previously rejected under 35 USC §101 in the prior Office Action of July 8, 2009.) Claim 45 was amended as follows in the last Response of January 5, 2010:

> 45. **(CURRENTLY AMENDED)** A method of processing credit/charge card payments including the steps of:
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> a. receiving a funds transfer authorization identifying a credit/charge card to be charged, the funds transfer authorization**:**
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> **(1)** including data uniquely identifying a location at which a utility meter is installed**, and**
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> **(2)** **being unrelated to any measurements made by the utility meter**; ~~**and;**~~
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> b. accepting the data uniquely identifying the location as verifying that the credit/charge card is physically present at the location, and
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> c. processing the funds transfer authorization as a card present type transaction.

However, this amendment clearly does not necessitate the new §101 ground of rejection (as required by MPEP 706.07(d) for finality): the rejection, as set forth at pages 2-3 of the current April 6, 2010 Office Action, could plainly have been made to claim 45 as it stood at the time of the prior July 8, 2009 Office Action, and the amendment in no way provoked or created the grounds for the new rejection. Further, no information disclosure statement was late-filed during the period set forth in 37 CFR 1.97(c).

In summary, since the new §101 ground of rejection was neither (1) necessitated by applicant's amendment of the claims, nor (2) based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c), MPEP 706.07(d) requires that the finality of the Office Action be withdrawn.

2. Rejection of Claim 45 under 35 USC §101

This rejection should be withdrawn because the method recited by claim 45 does in fact "transform a particular article into a different state or thing," which (as noted by the rejection) is sufficient to comply with 35 USC §101. In claim 45, the utility meter data (clause a(1)) is effectively transformed into a "card-present" indication (clause b), which in turn triggers a card-present transaction (clause c). Stated differently, the claimed process concludes with a card-present verification, and this is clearly not present at the start of the method, and is produced from the utility meter location data. Claim 45 therefore involves a transformation, and is statutory.

3. Rejection of Claims 1-12, 14-21, 23, 28, 37-39, 41-43, and 45-47 under 35 USC §103(a) in view of U.S. Patent 5,959,549 to *Synesiou et al.*, U.S. Patent 5,146,067 to *Sloan et al.*, and U.S. Patent 6,282,522 to *Davis* (and rejections of claims 13, 24-26, and 48 further in view of WO 00/58922 to *Bos*)

These rejections are clearly erroneous because they fail to establish a proper *prima facie* case of obviousness, as discussed below. Before reviewing the errors, it is initially useful to review the claimed invention and the cited references.

The claimed invention is then directed to systems and methods for reducing credit/charge fraud by verifying, in the course of a purchase/transaction, that a credit/charge card is present at or near a particular location (the location of a utility meter). To review, there are two primary types of credit / debit card transactions:

(1) Card-present transactions, wherein the physical credit card is presented to a vendor at a point of sale to pay for goods. In this case, the vendor sees the card, and can visually inspect it (and perform actions such as matching the signature on the card to the signature provided by the purchaser) to obtain a reasonable assurance that the card is genuine. While fraud is still possible, card-present transactions present relatively low fraud risk.

(1) Card-not-present transactions, wherein the purchaser is not at the physical point of sale, e.g., where the sale is made over the phone, or via an internet transaction. In this case, the card cannot be inspected by the vendor: the card number is read over the phone or entered into a web page, and this is passed to a financial institution to obtain payment for the transaction. These transactions are more susceptible to fraud, e.g., by employees of merchants copying card data when cards are out of sight, or by someone acquiring credit card number from discarded mailings or receipts. Even where thieves are only able to acquire partial card data, they can commit fraud by "guessing" missing card data via random number generation or similar techniques.

From the perspective of the financial institution, the prospect of fraud is considerably higher for card-not-present transactions than for card-present transactions. This risk is reflected by the rates charged by financial institutions to merchants when accepting card-not-present transactions, by the time and level of scrutiny applied to card-not-present transactions, and by other hurdles faced by merchants accepting card-not-present transactions.

The claimed invention alleviates this risk, at least in part, because tying the card number (and card presence data, e.g., a physical card swipe and/or entry of the 3-digit code on the card signature strip[1]) to the identification (and thus the location) of a utility meter helps to give a guarantee of the charger's location (and the card's location). It can therefore be seen whether a charge originates from a "safe" location – e.g., the authorized user's home, or some distance therefrom – rather than an unsafe one, e.g., a far-off location at which the authorized user is unlikely to be.

Looking then to the cited references, U.S. Patent 5,959,549 to *Synesiou et al.* is directed to an improved Electricity Dispensing Unit (EDU) system, wherein an EDU allows a consumer to prepay for power at a site, and then cuts power to the site when the paid amount is consumed (column 1 lines 6-25). Referring to FIG. 1, a power provider – whose payment processing

[1] This code is variously referred to in the industry as the Card Security Code (CSC), Card Verification Value (CVV), Card Verification Code (CVC), Card Code Verification (CCV), Verification Code (V-Code), and similar names. It is noted that the USPTO's own EFS-Web online filing system requests such codes if charge cards are used to pay USPTO fees online.

facilities ("Vending Depot," "Treasury Dept.," "Master Control") are illustrated at the top of the Figure – communicates via radio with"concentrators" 32 receiving power from mains cable 36 (column 3 lines 41-55). Communal metering controllers ("CMCs") 34 – which are effectively electricity substations which subdistribute electricity from the mains cable 36 – communicate with the concentrator 32 over the mains cable 36, thereby in turn allowing the substations / CMCs 34 to communicate with the power provider via the radio link of the concentrator 32 (column 3 lines 41-50).

Each substation / CMC 34, shown in greater detail in FIG. 2, contains several remote measurement modules (meters) 38, shown in greater detail in FIG. 3 (column 3 lines 57-63). Each meter / remote measurement module 38 controls power supply to a particular site to which it is assigned (column 3 lines 57-63). Looking to FIG. 3, in each meter / remote measurement module 38, a transformer 58 measures the amount of power consumed at the meter / module 38's site. The power consumption data is passed to the substation / CMC 34 of FIG. 2 via the meter / module 38's interface 70 (column 4 lines 4-24). Referring to column 4 lines 33-49, the meter / remote measurement module 38 also includes a controller 68 (FIG. 3) storing a variety of data (column 4 lines 33-53), including "a unique identification number and a module address code, allowing the consumption data derived from a particular consumer site to be related to that site and to the credit data corresponding thereto" (column 4 lines 49-53). The controller 40 (FIG. 2) of the substation / CMC 34 then receives the consumption data and meter ID for each of its meters / modules 38 versus each meter / module 38's credit, and when the credit stored by the substation / CMC 34 is exhausted, the substation / CMC 34 signals the controller 68 (FIG. 3) of the meter / module 38 to have its contactor 60 cut power (column 4 line 54 onward).

A display unit 73 (FIG. 4) is also provided at each consumer site, and it allows consumers to communicate with the power provider, e.g., to send in credit card data and purchase power (column 5 lines 15-65). However, the display unit 73 is not part of the site's meter / remote measurement module 38, nor does it directly communicate with the meter / remote measurement module 38. Rather, the display unit 73 has "a microprocessor controller 74 connected to a mains modem 76 which is arranged to be plugged into the mains electrical

supply at the consumer site and which allows communication between the remote display unit and the communal metering controller 34 which controls the supply of electricity to that consumer site, via the mains modem 42" (column 5 lines 18-24). Or, as stated at column 6 lines 40-43, "[t]he remote display unit can be installed anywhere at the consumer site, since it has no direct physical link to the communal metering controller 34, but communicates instead via the mains supply into which it is plugged."

U.S. Patent 5,146,067 to *Sloan et al.* concerns a prepayment utility metering system in which cards are loaded with pre-payment credits at a location remote from the utility meter (column 3 lines 51-60), and the cards can then be read at the meter to provide utility credits (i.e., to prepay for utility usage). When the credits are exhausted, a new card with additional credits must be purchased to ensure continued utility supply (column 17 lines 35 to 39). The cards are not credit or debit cards, nor could they be used as such. The data on the cards, which is borne on a magnetic strip, is encrypted for security so that only the issuing system and the customer's premises can read the data (column 3 lines 60-65). The utility meter does not communicate with the utility supplier concerning a financial transaction (the utility usage purchase); as with utility prepayment systems discussed in prior Office Actions and Responses, it has no need to do so, since the utility meter simply stops supplying the utility once the pre-paid credits are exhausted. The cards are only sold to consumers at certain facilities (column 8 lines 32-35), and the underlying financial transaction will take place at these facilities when purchasing the prepayment credits. The transaction type will depend on whether the transaction meets the credit/debit card present criteria and has nothing to do with the use of the card (this is what is being bought).

All the utility meter needs to do in *Sloan* is read the data on the card. The utility meter and/or its user interface does not communicate any data away from the meter (to a financial institution or otherwise); it simply turns the meter on and off in relation to the credit detected on the card.

WO 00/58922 to *Bos* is then yet another system for purchasing utility usage by a prepayment system, but here the prepayment credit or "token" is purchased wirelessly (via a

cellular / GSM handset), thereby avoiding the need for a rural customer to go to a location which sells prepayment cards (as in *Sloan et al.*). The utility meter does not take any part in the actual purchase of the prepayment token; this is purely between the customer's cellular / GSM handset and the token vending site. As such, it is not clear *Bos* even uses credit / charge card transactions, and in any event it certainly would not be the case that the utility meter could be used to vouch for the location of the transaction (given that it could happen anywhere from which one is capable of making a GSM call).

As for U.S. Patent 6,282,522 to *Davis et al.*, this is simply an internet-based purchasing scheme wherein a user purchases goods or services over the internet using a stored-value card read at a card reader associated with the user's computer (Abstract, column 6 line 23-column 7 line 25, column 12 lines 10-22, FIG. 10). Card-based remote payment systems have been presented in other references previously considered during examination of this application (e.g., in *Sloan*, in U.S. Patent 6,529,883 to *Yee et al.*, etc.), and to this extent, *Davis et al.* really doesn't present anything that hasn't already been considered in prior Office Actions and Responses.[2]

The claimed invention is in no way obvious because an ordinary artisan reviewing the cited references, and the state of the art in general, would never conceive the notion of using utility meter ID's in the course of a purchase/transaction to verify the location of a credit/charge card. Looking to the stated rationale for the rejections of ***independent claims 1, 37, 42, and 46*** (at pages 5-6 of the Office Action):

> In this case, each of the elements of the cited references combined by the Examiner performs the same function when combined as it does in the prior art. Thus, such a combination would have yielded predictable results. *See Sakraida*, 425 U.S. at 282, 189 USPQ at 453. Therefore, Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* (KSR, 82 USPQ2d at 1396) forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness. See the recent Board decision Ex arte Smith, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007). . . .
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> Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Synesiou and Sloan to include that the

[2] The Office Action itself is largely a verbatim reproduction of the prior Office Action, save that it cites *Davis* rather than making use of official notice (as in the prior Office Action), and additional statements are added to the explanations as to why the claims are believed obvious.

> financial institution processes the card charge request from the utility meter regardless of whether the card charge request relates to any utility usage measurements, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable. *KSR*, 127 S.Ct. at 1740, 82 USPQ2d at 1396.

However, this grossly oversimplifies the current law of obviousness. It is true that *KSR* found that obviousness can still be present even where there is no explicit teaching, suggestion, or motivation. However, *KSR* maintained – and indeed emphasized – that:

(1) any conclusion of obviousness must consider the specific facts of the case at hand, and must be supported by sound reasoning, rather than by form paragraphs and "canned rejections" (which is what the current rejections consist of); and

(2) obviousness is *not* made out by merely finding that the elements of the claimed invention were known in the art (which is the basic reasoning of the current rejections).

As noted in MPEP 2142:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

(Emphasis added.) The *Ex parte Smith* case cited by the Office Action emphasized this as well in its review of *KSR*:

> The Court explained, "[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." Id. at 1740-41, 82 USPQ2d at 1396. The Court noted that "[t]o facilitate review, this analysis should be made explicit." Id., citing In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness").

Ex Parte Smith at 14 (emphasis added). Further, more recent cases of the Board of Appeals have gone even further to explain this. From *Ex parte Whalen*, 89 USPQ2d 1078, 1084 (Bd. Pat. App. & Int. 2008):

> The U.S. Supreme Court recently held that rigid and mandatory application of the "teaching-suggestion-motivation," or TSM, test is incompatible with its precedents. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 [82 USPQ2d 1385] (2007). The Court did not, however, discard the TSM test completely; it noted that its precedents show that an invention "composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." Id.
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> The Court held that the TSM test must be applied flexibly, and take into account a number of factors "in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed." Id. at 1740-41. Despite this flexibility, however, the Court stated that "it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements in the way the claimed new invention does." Id. "To facilitate review, this analysis should be made explicit." Id. . . . .
>
> The KSR Court noted that obviousness cannot be proven merely by showing that the elements of a claimed device were known in the prior art; it must be shown that those of ordinary skill in the art would have had some "apparent reason to combine the known elements in the fashion claimed." Id. at 1741.

(Emphasis added.) See also MPEP 2143.01, part IV (noting that the mere fact that "the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references.")

The rejections are therefore clearly erroneous, primarily in two respects. ***First***, they are precisely the type of "mere conclusory statements" prohibited by the foregoing decisions, and contain no "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" (as required by the foregoing decisions): they simply regurgitate form paragraphs. More particularly, the rejections do not explain any "apparent reason to combine the known elements in the fashion claimed" (as also required by the foregoing decisions), and rather the rejections find that the invention is obvious because the "claimed invention is merely a combination of old elements" – *which, as noted by the foregoing cases, is not a sufficient basis for declaring the claimed invention obvious.* Even if the recited components of the invention were previously known, and if they acted in a known manner once combined (which is not in fact the case, as explained below), the Office Action provides no explanation

as to why an ordinary artisan would have conceived the combination in the first place. *This is clearly erroneous in view of the foregoing authority.*[3] In prior Responses, we have repeatedly pressed for adherence to the analysis of MPEP 2142,[4] and requested an explanation as to why / how an ordinary artisan who had no knowledge of the claimed invention, but who knew the general state of the art (including the cited references), would truly come to conceive the claimed invention in light of this knowledge. No such explanation has been provided.

Second, the rejection is clearly incorrect to state that "in the [claimed] combination each element merely would have performed the same function as it did separately": *no art of record shows use of utility meter data as an indicator of card location/presence, e.g., as a card-present indicator*.

None of the art of record contemplates or suggests a purchasing system wherein utility meter data is used to help verify the validity / non-fraudulent nature of a card transaction. It is simply unknown to make non-utility purchases wherein the transaction data is linked to a meter location identifier, and if the MPEP 2142 analysis is followed, and if one places the prior art out of mind (to avoid hindsight) and evaluates the state of the art, it is apparent that an ordinary

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[3] In particular, note that the aforementioned *Ex parte Whalen* case and MPEP 2143.01, part IV show that the Office Action clearly errs by finding the claimed invention obvious on the basis that the "claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable: this still fails to explain any "apparent reason to combine the known elements in the fashion claimed."

[4] From MPEP 2142:

> To reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. Knowledge of applicant's disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences," conduct the search and evaluate the "subject matter as a whole" of the invention. The tendency to resort to "hindsight" based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

artisan would not have conceived the claimed invention in view of the state of the art. The invention is therefore unobvious, and the rejections should be withdrawn.

4. In Closing

If any questions regarding the application arise, please contact the undersigned attorney. Telephone calls related to this application are welcomed and encouraged. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

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